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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,454	12/12/2003	Shigemi Ohtsu	118039	1417

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EXAMINER	
VARGOT, MATHIEU D	
ART UNIT	**PAPER NUMBER**
1732	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/733,454	OHTSU ET AL.	
	Examiner	Art Unit	
	Mathieu D. Vargot	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/27/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al (see Figure 15; col. 10, line 62-col. 11, line 6; col. 21, lines 18-24; col. 32, line 58-col. 34, line 12) in view of either of Japanese documents 2002-365,429 or 2002-146,066 as disclosed at pages 6-7 of the instant specification.

Kim et al teaches preparing a mold/template (20) with concave portions for forming a core portion of a waveguide, bringing a substrate (30) which functions as a cladding film substrate against the mold, the mold having been filled with the core-forming portion (ie, the filling step is met-see col. 33, line 13), curing the core forming resin (col. 33, line 21), removing the mold (col. 33, line 27) and forming a clad layer (col. 33, lines 55+) on the core-formed surface of the substrate (30). While the formation of the waveguide employs a filling step in which the mold and substrate are not necessarily in close contact, the instantly claimed filling is shown in Fig. 1 of Kim et al and clearly would have been an obvious modification in the waveguide formation procedure. Essentially, the primary reference fails to teach the aspect of applying an ozone or low UV wavelength radiation to the mold or substrate surface. However, either secondary reference teaches this to improve the degree of hydrophilicity of a polymeric surface as noted by applicant. Note that Kim et al (col. 21, line 13) teaches that a hydrophilic

surface would be encompassed within the invention of the primary reference. It is submitted that the instant treatments are well known in the art to make a polymeric surface more hydrophilic and that one of ordinary skill in the art would have known of them and used them for the purpose of improving the hydrophilicity of the surfaces in Kim et al. Concerning the material of the mold, applicant is referred to column 22, line 58. Acrylics are noted at the passage bridging columns 11 and 12 of Kim et al. At any rate, the exact materials used for the core and cladding are well known and would have been within the skill level of the art dependent on the exact use for the waveguide. Clearly, so would have the refractive indices surface energies, hardness and roughness, since these would be tied to the materials used to make the waveguide.

2.The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3.Claims 1-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9 and 10 of copending Application No. 11/005,077 in view of either of Japanese documents 2002-365,429 or 2002-146,066.

The claims of co-pending application –077 recite essentially the instant method lacking a teaching of treating the molding surfaces with an ozone or irradiation treatment as set forth in the instant claims. However, either of Japanese –429 or –066 disclose that such is well known in the art and such would have been an obvious modification to the process claimed in the copending application to render the surface more hydrophilic.

This is a provisional obviousness-type double patenting rejection.

4. Claims 1-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/936,639 in view of either of Japanese documents 2002-365,429 or 2002-146,066.

The claims of co-pending application –639 recite essentially the instant method lacking a teaching of treating the molding surfaces with an ozone or irradiation treatment as set forth in the instant claims. However, either of Japanese –429 or –066 disclose that such is well known in the art and such would have been an obvious modification to the process claimed in the copending application to render the surface more hydrophilic.

This is a provisional obviousness-type double patenting rejection.

5. Claims 1-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/930,816 in view of either of Japanese documents 2002-365,429 or 2002-146,066.

The claims of co-pending application –816 recite essentially the instant method lacking a teaching of treating the molding surfaces with an ozone or irradiation treatment as set forth in the instant claims. However, either of Japanese –429 or –066 disclose that such is well known in the art and such would have been an obvious modification to the process claimed in the copending application to render the surface more hydrophilic.

This is a provisional obviousness-type double patenting rejection.

6. Claims 1-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 and 23-25 of copending Application No. 10/390,685 in view of either of Japanese documents 2002-365,429 or 2002-146,066.

The claims of co-pending application –685 recite essentially the instant method lacking a teaching of treating the molding surfaces with an ozone or irradiation treatment as set forth in the instant claims. However, either of Japanese –429 or –066 disclose that such is well known in the art and such would have been an obvious modification to the process claimed in the copending application to render the surface more hydrophilic.

This is a provisional obviousness-type double patenting rejection.

7. Claims 1-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of copending Application No. 10/801,803 in view of either of Japanese documents 2002-365,429 or 2002-146,066.

The claims of co-pending application –685 recite essentially the instant method lacking a teaching of treating the molding surfaces with an ozone or irradiation treatment as set forth in the instant claims. However, either of Japanese –429 or –066 disclose that such is well known in the art and such would have been an obvious modification to the process claimed in the copending application to render the surface more hydrophilic.

This is a provisional obviousness-type double patenting rejection.

8.Claims 1-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,901,198 in view of either of Japanese documents 2002-365,429 or 2002-146,066.

The claims of US Patent -198 recite essentially the instant method lacking a teaching of treating the molding surfaces with an ozone or irradiation treatment as set forth in the instant claims. However, either of Japanese –429 or –066 disclose that such is well known in the art and such would have been an obvious modification to the process claimed in the US Patent -198 to render the surface more hydrophilic.

9.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on 571 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
November 10, 2006

M. Vargot
Mathieu D. Vargot
Primary Examiner
Art Unit 1732
11/10/06